

positive tuberculin reaction. In that country, tuberculin testing is carried out extensively and uniformly. In recent years, BCG vaccination was applied to all tuberculin-negative soldiers in the Danish Army. The tendency now is to vaccinate all tuberculin-negative school children. In Denmark, BCG vaccination has apparently been accepted widely as a public health measure in tuberculosis prevention.

The data reported upon here indicate that BCG vaccination may be a valuable adjunct to other protective measures in tuberculosis work, especially for certain population groups. Also indicated is the need for continued research and for careful observation and evaluation of any BCG vaccination program.

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INDIA'S POPULATION: FACT AND POLICY¹

IN our troubled world no people are more tragically ravaged by poverty, famine, and disease than are those of India. It is of these people that Dr. Chandrasekhar writes in his book *INDIA'S POPULATION: FACT AND POLICY*. The author introduces India's population problem as an example of too many births, too many deaths, and too many people subsisting at shockingly low levels of living. He focuses attention upon the underlying economic and social maladjustments of his native country, and offers a nontechnical description for the general reader.

The mean density of population for all India is not abnormal. Although parts of east Bengal have over 1,000 persons per square mile, India as a whole has a mean density of only 246 persons per square mile. This is five and one-half times the density of our United States but it is less than that of Germany, Japan, or England. The rate of growth of India's population likewise is not abnormal, but because of her giant population a modest 15 per cent rate of increase during 1931-1941 added fifty millions to her numbers within that time (p. 16).

The steady rate of growth and high birth rate of India during the last two decades are the results of social, religious, economic,

¹ Chandrasekhar, S.: *INDIA'S POPULATION: FACT AND POLICY*. New York, The John Day Company, 1946, 117 pp. \$2.00.

and political factors. Relative peace has been India's during this span of years and some improvements have been made in her health measures and agricultural techniques. Thus, whereas death rates have declined slightly, birth rates remain high owing to the universality of the married state, the early age at which reproduction begins, and the virtual absence of practices of family limitation.

India's population is largely rural and agrarian. She has fifty-seven cities with a population of 100,000 or more, and there is not much rural-urban migration. With no alternative to the agricultural way of life the peasants are economically tied to the land on which they were born. Furthermore, caste and differences in languages and customs discourage migration even from one province to another. The proportion of industrial workers to the total working population has even declined, and 85 to 90 per cent of the population still depend upon the land either indirectly or directly for their livelihood (p. 52).

The majority of India's rural families live in mud huts. Frequently there is only one room for a large family. In the cities there is sharp contrast between luxury and poverty. Sanitary facilities and an adequate water supply frequently are lacking in the workers' quarters, and over-crowding in these areas was intensified during the war.

India's literacy record is shockingly low; only 12 per cent of the people ten years of age and over were literate in 1941. The percentage is lower for females than for males.

Public health facilities are woefully inadequate both in personnel and equipment. On the average, one doctor must serve a population of 10,000, two hospital beds must serve 10,000, and one nurse must serve 100,000 (p. 58). In 1940 there were barely 2,000 dentists in all India (p. 58). The life expectancy in India is thirty-two as compared with our own expectancy of sixty-one years. Enormous resources of human life are wasted by malaria, tuberculosis, and the epidemics—cholera, plague, smallpox.

The formulation of a wholesome population policy for India is no easy task. The author suggests as a first step the creation of a National Census Bureau, and the appointment of a Population Commission composed of leading sociologists, economists, medical authorities, social workers, and statisticians who would

study both the qualitative and quantitative aspects of the problem. He claims that the government concentrates on maintaining law and order and gives too little attention to the education, health, and land resources. As further concrete proposals, Chandrasekhar advocates the establishment of a "Ministry of Public Affairs" with four bureaus. (1) A "Bureau of Marriage and Eugenics" might promote a uniform marriage law with an effective ban on early marriage. It could foster premarital medical examinations, prenatal and postnatal care for mothers, and the provision of birth control facilities. (2) A "Bureau of Growth and Nutrition" could try to devise a balanced diet within the means of the average Indian. It could seek to remove religious and social bans on certain foods, and cooperate with agriculturists in attempts at improving the national food supply. (3) A "Bureau of Education and Vocational Guidance" could work for universal compulsory education. (4) A "Bureau of Special Clinics" might establish more adequate facilities to combat tuberculosis, leprosy, and mental diseases. It should emphasize research and develop a well-trained personnel.

Obviously, such a program would require tremendous financial backing by the government and India's poverty is at the heart of her population problem. One cannot plan a Utopia when bare subsistence can hardly be maintained. Chandrasekhar sees hope in national socialism with government-controlled heavy industries and landlordism abolished in agriculture. He would have land redistributed and cooperative farming encouraged. He feels that India could only achieve economic reorganization with political independence. Chandrasekhar does not attempt to tell us how such elaborate social and economic planning is to be accomplished. But he has performed well the task of introducing the reader to the problems of his native India.

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